

A TYPE II RESTRICTION ENDONUCLEASE AND APPLICATION THEREOF

ABSTRACT OF THE DISCLOSURE

Disclosed is a novel type II restriction endonuclease. Such enzyme recognizes a particular non-palindromic sequence of 5 oligonucleotides and cleaves DNA downstream of the DNA recognition sequence of nucleotides at the fourth base in the upper strand and the fifth base in the lower strand, and forms a one-base protruding end in the 5'-end after cleavage. The recognition and cleavage site of HpyC1I is identical to the known restriction endonuclease BccI respectively, but the nucleotide sequence and the amino acid sequence are different from any other know restriction enzymes.